

of the interior in this species, is due, when visible, solely to weathering, and is evidently not the normal state of the surface. At first sight the shell might be taken for a species of *Modiola*, and by its discoverer was supposed to be a species of *Dreissena*. It was not until the hinge had been submitted to the lens that its true characters were ascertained.

A description of the typical species may here be subjoined in an amended form.

*Scaphula Celox*, Benson. Journ. As. Soc. Calc. vol. v. p. 750

Testa elongato-trapeziformi, albida, marginibus (superiori et inferiori) parallelibus, antice rotundata, postice oblique truncata; carina vix compressa; pagina antica, multo majori, costulis exiguis radiatis munita, postica lævi; epidermide tenui cornea induta; muscoli anterioris impressione ovata, posterioris inferiori elongato-quadrata.

Long. 12, alt. 5, crass. 8 mill.

*Habitat* in fluminibus Jumna et Cane, necnon in rivo quodam Bengalie citra Gangem.

In one specimen, from the River Cane, the keel has a disposition to be double, with an intervening furrow. This is apparently only an accidental variation.

Cheltenham, 10th January 1856.

XI. — *Description of Tanystoma tubiferum, a Burmese form related to the Genus Anostoma of Lamarck.* By W. H. BENSON, Esq.

THE only Eastern shell hitherto made known which bears any relation to the Brazilian genus *Anostoma*, is the little species discovered by the late Capt. Boys in Rajpootana, designated by me as *A. Boysii*. It was separated by Pfeiffer under the generic name of *Boysia*, and soon after by Albers as *Hypostoma*. A singular Anostomatous shell, still more minute than *Boysia*, was found by Mr. W. Theobald on the banks of the Irawadi. Its open umbilicus, differing from the closed rimate volution of the known types, and especially the curious solute and protracted last whorl and trumpet-mouthed aperture (which is dentate, as in the ancient genus *Anostoma*), render it desirable to characterize the shell as a new type of form, under the name of *Tanystoma*, which may be considered as generic or sectional according to the views of systematists, some of whom do not admit the claim of *Boysia* to generic separation.

*Ann. & Mag. N. Hist.* Ser. 2. Vol. xvii.

*Tanystoma*, nobis.

Testa convoluta, conoidea; umbilicus apertus; anfractus ultimus solutus, protractus, sursum tortus, aperturam dentatam alte tollens; peristoma horizontale, expansum.

*T. tubiferum*, nobis.

Testa depresso-conoidea, radiato-striata, cornea, sutura excavata, spira breviter conoidea, apice obtusiusculo; anfractibus 3, convexis, ultimo tubam protractam, sursum tortam, altiore quam apice, efformante, ad periphæriam valide et obtuse carinato, superne baltea tumida, a periphæria sulco profundo separata, munito, subtus convexo, margine umbilici aperti perspectivi angulato, angulo usque ad aperturam extendente; apertura horizontali, sursum spectante, 6-7-dentata, dentibus lamelliformibus duabus parietalibus, supera validiori duplicata, inferiori minore profunda, 1 columellari mediocri, 4 palatalibus, quarum superiori duplicata tertiaque majoribus; peristomate libero, valde expanso, reflexiusculo.

Diam. major 4, min. 3, axis 2 mill.

*Habitat* ad Thyet-Mio prope ripas fluminis Irawadi Burmanici, saxis calcareis adhærens.

This interesting shell was found by Mr. Theobald to be very local, but not uncommon at the spot indicated—about six miles south of the frontier station. It was not met with lower down the river at Prome, nor elsewhere.

*Cyclophorus fulguratus*, Pfr., was found from Thyet-Mio to Rangoon; and a gigantic *Megalomastoma*, of the type of *M. Chrysallis*, Pfeiffer, resembling in size and figure *Pupina grandis* of Forbes, near Moulmein, verifying the opinion communicated to Dr. Pfeiffer, that the true habitat of those two species was probably Ava, and not Arva, a river in Columbia, as conjectured by that author from the illiterate orthography of the name furnished to him.

Five new species of Gray's genus *Alycæus* occurred, two of which are related to the Himalayan *A. strangulatus*, H., and *A. gibbus* of Cochin China. There are also two new forms of *Pterocyclos*, two of *Pupina*, besides a third from Sylhet, a new *Leptopoma*, an *Otopoma* (?), and two or three new *Cyclophori*. Two new minute *Hydrocenæ*, closely allied to my Khassya *Cycl. sarritum*, with the operculum, enable me to fix the place of that species, as well as of *C. tersum*, mihi, and probably of *C. Milium*, both of which Pfeiffer, in a letter dated some months ago, conjectured to belong to *Hydrocena*. *Cyclotus* and *Diplommatina*, which are Indian forms, are not represented in the collection.

In new Helices the collection is very rich: one form in par-

ticular is curious, from its resemblance to the North American *H. hirsuta*, Say.

Mr. Theobald's personal researches in the Punjab and Sikkim have also added new forms from the Salt Range and Darjiling.

Cheltenham, 12th January 1856.

XII.—On *Pleurodictyum problematicum*. By WILLIAM KING, Professor of Mineralogy and Geology in Queen's College, Galway, Corresponding Member of the Natural History and Medical Society of Dresden, &c.

[With a Plate.]

A FEW weeks since I selected, from the extensive sale collection of Dr. Krantz of Bonn, several fine specimens of the *Pleurodictyum problematicum* of Goldfuss, from the Upper Devonian sandstone of Daun in the Eifel. Previously, I had not examined any examples of this singular fossil: all the information I then possessed respecting it was derived from some published figures and descriptions by Goldfuss, Phillips, and Lyell; and I had an impression that the vermiform appendage, occurring within it, was generally considered to be a foreign body.

*Pleurodictyum problematicum*, as it usually occurs, may in general terms be described as an oval or nearly circular discoid body, having one surface free and the other firmly adhering to a portion of the matrix in which it occurs. If observed attentively, it will be seen to consist of a number of closely packed, more or less inclined subpolygonal cones, with their apex or small end corresponding to the free surface, and their base attached to the matrix: the cones are at a slight distance from one another, but connected by means of a number of short thread-like processes crossing the vacant interspaces. Within the central area of the free surface a sigmoid or S-shaped vermiform appendage is seen lying among the interspaces, and having both terminations passing down to the opposite or adhering surface.

Sir Charles Lyell has given a tolerably correct view, natural size, of the free surface of this fossil in his excellent Manual, p. 429, 5th edit. The same surface is represented, twice the natural size, in Pl. X. fig. 1, so as to exhibit the different parts more obviously.

The fossil, as just described, is a cast; it will therefore be evident, that the cones are casts of subpolygonal cells,—the vacant interspaces, their walls,—and the short thread-like processes crossing the same, casts of tubular openings or foramina in the cell-walls. It will also be obvious, that the free surface exhibits